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K&L Gates LLP  
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EXAMINER
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THAKUR, VIREN A

ART UNIT	PAPER NUMBER
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1794

NOTIFICATION DATE	DELIVERY MODE
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03/19/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

chicago.patents@klgates.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/528,385	<b>Applicant(s)</b> LEVY ET AL.	
	<b>Examiner</b> VIREN THAKUR	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 27, 2010 has been entered.

### ***Response to Amendment***

2. Upon reconsideration, the rejection of claim 16 under 35 U.S.C. 112, second paragraph has been withdrawn.
3. In view of the amendment to the claims, the rejection of claim 2, under 35 U.S.C. 112, second paragraph has been withdrawn.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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**5. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claim 1 recites the limitation “passing the container having the frozen dessert through a freezing tunnel at a temperature that allows the frozen dessert to form a pasty state.” It is noted that applicants’ specification indicates that the temperature of this tunnel is between -35°C to -38°C. Since the product is already frozen (i.e. “the frozen product”) the claim is not clear as to how placing a frozen product in a freezing tunnel having a temperature of at least -35°C would result in the formation of a pasty state, especially since the product is already frozen when placing it into the container. It is noted that the specification appears to indicate that the product in the container is only partially frozen and then is passed through a freezing tunnel.

Claim 8 recites the limitation “Wherein the rigid receptacle is filled through the dispensing member.” The claim is not clear as to what component is filled through the dispensing member.

Claim 11 recites the limitation “the side of the first compartment.” There is insufficient antecedent basis for this limitation in the claim. Claim 11 also recites the limitation “the product to be dispensed.” There is also insufficient antecedent basis for the limitation “the product.”

Claims 1 and 15 recite the limitations “using a propellant gas” “using an expansion gas.” Claim 6 recites the limitation “using a metering nozzle.” Claim 11 recites the limitation “the second compartment has a valve enabling the propellant gas

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to be injected.” These limitations are indefinite since they recite a use without any active, positive steps delimiting how this use is actually practiced.

Claims 1-16 are thus rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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**8. Claims 1-4,9,12 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riviere (WO9730600) in view of Smadar et al. (US 3677443), Getz (US 2294172) and Morley et al. (US 4346120) and in further view of Packaging Technology, Ciabatti (EP 0509967), Clauwert (EP1061006), Scheindel (US 6880732), and Schultz (US 3827607) and in further view of Hall (US 5698247), Destephano et al. (US 6379736) and Cox et al. (US 5633029).**

Since applicants have not provided a translation of the foreign priority document, Scheindel (US 6880732) is still valid as prior art (based on their effective filing dates) in view of applicants' effective filing date of September 5, 2003.

Regarding claims 1 and 16, Riviere et al. teaches a thick but malleable frozen dessert (column 2, lines 45-48) which is placed in a container such as a pressurized container (column 6, lines 34-39) comprising both nitrous oxide (column 6, line 37), which is an expansion gas and a propellant gas, such as nitrogen (column 6, lines 37-39). Clearly, by using a pressurized container, the propellant is at a pressure great enough to ensure suitable dispensing. Riviere et al. also teach injecting an aerating gas into the product, such as nitrous oxide (see page 16 of the translation and page 7, lines 20-24 of the translation). Riviere et al. also teaches that the mixture is intended to be frozen after it is made and to be distributed while in a frozen state, to the consumer (see page 7, lines 8-9 of the translation). Therefore, Riviere et al. discloses incorporating applicants' expansion gas and propellant gas into a pressurized container for dispensing a thick but malleable frozen dessert. Riviere et al. teach the concept of

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freezing the dessert while in the container to a temperature of between -18°C and -24°C.

Furthermore, it is noted that Smadar et al. has been relied on to teach dissolving of an expansion gas, such as nitrous oxide, such as upon dispensing of the ice cream from the flexible bag for the purpose of aerating the final product dispensed from the container. By incorporating the gas into the frozen dessert, Smadar et al. teaches that the pressure within the dessert will result in a particular overrun (i.e. expansion or aeration) when dispensed (column 4, lines 46-61). Getz has been relied on to teach dissolving nitrous oxide into cream composition, which when dispensed, result in the increased expansion of the product (page 1, left column, lines 33-50). In addition, Morley et al. has been further cited as evidence that it was conventional to inject a highly soluble expansion gas, such as nitrous oxide (column 7, line 62) into a “soft-serve” type ice cream for the purpose of providing aeration (column 7, line 50 to column 8, line 17). Therefore, by first dissolving the gas into the ice cream, the art taken as a whole teaches that this maximizes the space within the container, such that the ice cream is only expanded after dispensing. The art further teaches that the incorporation of a highly soluble expansion gas, such as nitrous oxide, has been conventionally employed for thick but malleable frozen desserts.

Claim 1 differs from Riviere et al. in specifically reciting that the container into which the frozen dessert has been placed is a rigid receptacle having a first compartment into which the dessert has been placed, and a second compartment into which an insoluble propellant gas has been placed.

It is noted that the particular type of container that applicants' employ is a conventional type of container, such as a pressurized container comprising a piston (or follower) which is pushed via the propellant to expel the product that is located on the opposite side of the piston. In any case, it is noted that Packaging Technology teaches that piston can containers have been a conventional expedient for dispensing viscous foods, wherein the product to be dispensed is placed into a first compartment and the propellant has been placed into the second compartment, (see page 548, right column, "The American Can Co..." to page 549, left column). Additionally, Clauwert has been relied on as further evidence that it has been conventional to employ a rigid, pressurized container comprising two compartments with a propellant in one compartment and a food product comprising an expansion gas separated from the propellant, in another compartment, with a piston defining the compartments (paragraph 0039, 0042 and 0043), wherein the compartment comprising the frozen dessert comprising a blowing agent such as N<sub>2</sub>O and the other compartment comprises a propellant. Clauwert teaches that either piston or bag-in can type containers can be employed (paragraph 0040-0042) and teaches that the separation of the propellant from the product facilitates the desired dispensability of the aerated, viscous product from the container and allows for more complete dispensing (see paragraph 0029 - "...spraying percentage... more than 98%). Ciabatti further evidences that it has been conventional to provide rigid containers for dispensing frozen products, wherein a piston separates the propellant from the product containing compartment (see abstract). Scheindel '732 also teaches a compartmented pressurized container for dispensing frozen desserts

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(see figures 1-2) with a bottom valve (figure 2, near item 16). Schultz further evidences that a piston-in-can type compartmented pressurized container facilitates complete dispensing of the product contained therein (see column 3, lines 15-21). In view of the art taken as a whole, and since Riviere et al. already teaches a combination of a frozen dessert with an expansion gas, such as N<sub>2</sub>O placed therein, which can be dispensed from a pressurized container comprising a propellant, to thus modify the combination and employ separate compartments for the dessert comprising the expansion gas and a separate compartment for the propellant, would thus have been an obvious matter of choice and/or design to one having ordinary skill in the art, for the purpose of achieving complete dispensing of a viscous aerated product. It is noted that claim 1 recites "placing the frozen dessert in a first compartment of a rigid receptacle equipped with a dispensing member..., the, after having put the dispensing member in a closed position, pressurizing the rigid receptacle by injecting a propellant gas into the second compartment of the rigid receptacle." Regarding this limitation, it is noted that the claim does not limit how the frozen dessert is "placed" into the rigid receptacle that is equipped with a dispensing member. That is, the claim still reads on the product being filled into the first compartment and then placing a dispensing member thereon. In any case, Schultz teaches filling the first compartment, and then filling a second compartment with a gas (see column 2, lines 39-50). Clauwert also teaches filling a compartment with the composition comprising the aerating agent and then filling the compartment with the propellant (paragraph 0061-0062).

Claims 1 and 16 recite the limitation “passing the container having the frozen dessert through a freezing tunnel at a temperature that allows the frozen dessert to form a pasty state.” It is noted that Riviere et al. already teach the concept of freezing the dessert while in the container to a temperature of between  $-18^{\circ}\text{C}$  and  $-24^{\circ}\text{C}$ . It is further noted that Morely et al. already teaches the step of freezing the ice cream mix to create a partially frozen product, while subsequently injecting an expansion gas, such as nitrous oxide. After this step, Morely et al. teaches packaging the product and reducing the temperature to below  $0^{\circ}\text{F}$  ( $\sim 17^{\circ}\text{C}$ ) (column 7, lines 50-59 and lines 61-62). Morely et al. is similar to Riviere et al. in reciting making a “pre-mix” which is subsequently homogenized and then cooled, and then subsequently frozen. Morely et al. also teaches that the resultant product is a “soft serve” type ice cream and therefore one which would have been spoonable. This is similar to Riviere et al., who also teach a spoonable ice cream composition. To therefore place the frozen ice cream product into the package and subsequently freeze the combination would therefore have been obvious to one having ordinary skill in the art, for the purpose of providing the desired consistency to the final ice cream product that has already been dispensed in the container. It is noted that Riviere et al. also teach “deep-freezing” after placing the product into the container.

It is noted that although Riviere et al. teaches deep freezing, Riviere et al. is silent in reciting that the packaged product is placed into a freezing tunnel. However, Morely et al. teaches that if one desired to include an expansion gas into the soft-serve type ice cream, then it would have been obvious to have frozen and aerated the ice

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cream mix, the obvious result being entrainment of the expansion gas within the frozen ice cream, such that upon dispensing the product is aerated to the desired amount.

Whether one actually employed a “freezing tunnel” or simply a freezer that can freeze the spoonable ice cream at a temperature of  $-17^{\circ}\text{C}$ , as taught by Morely et al., for instance, would have been an obvious matter of choice and/or design.

In any case, however, Hall teaches placing a frozen ice confection into a package and subsequently freezing this product within a freezing tunnel at  $-35^{\circ}\text{C}$ , for instance, with the product still being spoonable (column 3, lines 3-8). Destephano et al. have been further relied on to teach employing freezing tunnels to harden a frozen confection at temperatures up to  $-35^{\circ}\text{F}$  ( $\sim -37.2^{\circ}\text{C}$ ), which still results in the product being a soft gelato after hardening (column 7, lines 47-65), and Cox et al. has been relied on as further evidence that it was conventional to employ freezing tunnels and varying the particular conditions in the freezing tunnels for the purpose of achieving the desired structure and shape to the final product (column 4, lines 25-40). The references to Hall, Destephano et al. and Cox et al. thus teach that it was conventional in the art to package a frozen confection and then pass through a freezing tunnel to achieve the particular state of the frozen confection, such as a soft, spoonable / malleable texture. Since Riviere et al. already teaches storing the spoonable confection in a pressurized container at between  $-18$  and  $-24^{\circ}\text{C}$  to therefore employ another type of conventional freezer for freezing a package comprising a frozen confection, such as a tunnel freezer would therefore have been an obvious matter of choice and/or design.

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Further regarding claims 1 and 16, Riviere et al. already teach that it has been conventional in the art to package a thick but malleable dessert within a pressurized container comprising both a highly soluble expansion gas, such as nitrous oxide, and an insoluble propellant gas, such as nitrogen. Riviere et al. is appears silent in the particular properties of the product after dispensing from the pressurized container. That is, dispensing a pasty product which is then expanded when dispensed due to the expansion gas dissolved therein. Since Riviere et al. teach incorporating an expansion gas such as N<sub>2</sub>O in the product it would have been obvious that upon dispensing, the product would have expanded. In any case, the references to Smadar, Getz and Morley et al. have been similarly relied on to teach dissolving the expansion gas, which then expands upon dispensing for the purpose of maximizing the space within the container, as discussed above.

Regarding claim 2 which recites treating an ice cream mix in a freezer which is supplied with an expansion gas, Riviere et al. appears silent in this regard. Nevertheless, it is noted that Morely et al. teach that it has been conventional in the art to treat an ice cream mix, in a freezer, at 15°F (-9°C) and under pressure (column 8, lines 1-3), while also injecting a soluble gas, such as nitrous oxide into the ice cream mix. The art taken as a whole already teaches an ice cream product which is thick but malleable and can be dispensed from pressurized containers, as taught by Riviere et al., and further teach expansion of the ice cream upon dispensing by the inclusion of a soluble gas, such as nitrous oxide, as taught by Smadar et al. To therefore employ conventional processing temperatures for the purpose of achieving a "soft serve" type

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ice cream would therefore have been obvious for its art recognized and applicants' intended function. Clearly, by making a "soft serve" type frozen dessert, the product is considered partially frozen.

Regarding claims 3 and 14, Riviere et al., Smadar, Getz and Morley et al. all teach using nitrous oxide, which is dissolved into the frozen dessert.

Regarding claim 4, since the combination of the prior art teaches the claimed temperature and pressure range and further teaches the particular insoluble gas, such as nitrogen gas, the particular properties of the nitrogen gas, as recited in claim 4 would have been inherent to the nitrogen gas of the prior art, absent any clear and convincing evidence to the contrary and especially, since the dew point of the propellant gas is directly related to the specific temperature and pressure to which the gas has been exposed. As such, applicant has not claimed a particular temperature and pressure in the claims that would more clearly distinguish the nitrogen gas of the claims from that of the prior art.

Regarding claim 9, it is noted that the combination as applied to claims 1 and 16 teaches the advantages of employing rigid containers for filling a viscous aerated product that has an expansion gas dissolved therein in a first compartment and a propellant filled in a second compartment.

Regarding claims 12 which recites storing at a temperature below -10°C and claim 15, which recites wherein the temperature of the product is lowered from -15°C to -20°C, it is noted that Riviere et al. teach that the frozen product can be stored at

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temperatures between -18°C to -24°C (column 6, lines 28-31). This encompasses the range disclosed in claim 12.

**9. Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 1-4, 9, 12 and 14-16, above, and in further view of Scheindel (EP 0136104) and Lowy et al (US 3710538).**

Claim 5 differs from Riviere et al. in specifically reciting placing the partly frozen and partly expanded mix in the container by means of a metering device that limits the expansion of the product during filling.

Scheindel has been relied on to teach that it was conventional in the art to package viscous products into pressurized containers, wherein during metering of the product into the containers, expansion of the product was minimized (see abstract). Similarly, Lowy et al. has been further relied on to teach filling operations for viscous products such as ice cream (column 8, lines 3-5) which can include nitrous oxide (column 10, line 11) when metered into pressurized container impart as little work as possible onto the product so as to prevent any expansion of the product (column 10, lines 12-20). To therefore modify the combination and minimize any deviations in variables that would result in undesired expansion during filling of the container would have been obvious to one having ordinary skill in the art, for its art recognized and applicants' intended function.

Regarding claim 7 it is noted that Scheindel teaches on page 23, lines 5-8 that the filling, which further prevents expansion of the viscous product, as discussed above, is performed at high speed. Furthermore, since exposure of the ice cream mixture to a change in pressure would have resulted in expansion of the dissolved gas, to fill at a particular speed so as to minimize any exposure to a pressure differential or a change in temperature would have been an obvious result effective variable, routinely determinable by experimentation for the purpose of minimizing any expansion of the product during filling, in view of the art taken as a whole.

**10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 1-4, 9, 12 and 14-16, above, and in further view of DeVries (US 4967931) as further evidenced by Stogo ("Ice Cream and Frozen Desserts").**

Claim 6 recites wherein the metering nozzles moves with an up and down movement allowing filling by rising from the bottom of the container so as to prevent the formation of air pockets.

DeVries has been cited to teach that it has been conventional in the art to fill containers comprising viscous products, such as "soft serve" type ice cream, using a "bottom-up" type filling process for the prevention of the formation of air pockets in the container and for further preventing post expansion during dispensing (column 1, lines 6-32). Stogo has been relied on as further evidence of using bottom-up filling systems for "soft serve" type ice cream products for the purpose of preventing the formation of

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air pockets during filling (Page 50, "Packaging the Product"). To therefore modify the combination and employ a "bottom-up" style filling process would have been obvious to one having ordinary skill in the art, for the purpose of preventing air pockets during the filling of the product into the container.

**11. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 1-4,9,12 and 14-16, above and in further view of Youel (US 5277336) and in further view of Scheindel (US 6880732), Obrist (US 5799469), Mekata (EP1013566), Heimgartner (US 3225967) and Riviere (FR2829748).**

Since applicants have not provided a translation of the foreign priority document, Scheindel (US 6880732) and Riviere (FR2829748) are still valid as prior art (based on their effective filing dates) in view of applicants' effective filing date of September 5, 2003.

Claim 8 recites that the piston is positioned adjacent and under the dispensing member prior to the dispensing member filling the container. It is noted that the claim does not limit what component is filled through the dispensing member. Thus, the claim reads on both the propellant and the product being filled through the dispensing member. Claim 8 differs from the previous combination in reciting filling through the dispensing member.

Youel teaches the concept of filling both the product and the propellant through the dispensing member has been a conventional expedient for filling a pressurized container with a product (column 3, line 46 to column 4, line 21 and figures 4a-4d)).

Mekata further evidences this concept in figure 17, steps S1-S3. In these figures Mekata even teaches first injecting a propellant through the dispensing device (figure 17, step S2) with the gas then removed from the upper portion of the container S2A and subsequently a product charged into the upper compartment, thus driving down the piston (S3). Mekata also teaches that this process forgoes the need to turn the container over to add the propellant gas into the container (column 15, paragraph 0070).

Since applicants are not the first to fill a pressurized container through the dispensing member, to thus modify the combination and fill the container through the dispensing tube would have been obvious an obvious matter of choice and/or design to one having ordinary skill in the art.

Claim 8 further differs from this combination in reciting that the piston is positioned adjacent and under the dispensing member prior to the dispensing member filling the container.

Obrist has been relied on as further evidence that it was a conventional expedient in the art to have a barrier that separates the product from the propellant, which is initially adjacent and under the dispensing member, and when subsequently filled with product, is lowered (figures 6 and 7 and column 5, lines 10-37). The

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advantage of this arrangement is that the air present within the upper section of the can, can be expelled.

Additionally, Scheindel '732 teaches filling a product into a container which is pressurized, wherein, during loading of the product, the piston is forced down against the bottom of the container (column 4, lines 34-39). Obviously, if the piston is being forced down, it would thus have been within the upper portion of the container.

Scheindel '732 even teaches loading ice cream saturated with an expansion agent, such as nitrous oxide into the container while ensuring that the nitrous oxide stays in solution during dispensing (column 4, lines 15-27) and thus the particular piston is important for the purpose of maintaining the nitrous oxide in solution and preventing migration of the product and propellant during the loading and charging steps (column 6, lines 8-15)

Heimgartner also teaches the concept of a barrier adjacent and under the dispensing member, except with a bag instead of a piston (figures 1 and 2). In this case, Heimgartner teaches that a paste like product is filled through the dispensing valve and a propellant gas filled from the bottom of the container (column 2, lines 41-50). The only difference between Heimgartner and the claim is the use of a contractible bag being adjacent and under the dispensing member instead of a piston. Riviere '748 also teaches employing both bags and movable pistons for placing a product with an expansion gas and a propellant (see figure 3a to 3h).

Therefore, the art taken as a whole teaches filling a pressurized container with a pasty product including a pasty ice cream, and further teaches that the barrier between

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the product and the propellant can be initially adjacent and under the dispensing device. Although some of the above references are directed to flexible members that are adjacent and under the dispensing member, (i.e. Obrist and Heimgartner), it is noted that the flexible members perform a similar function to pistons by facilitating dispensing of the product by pushing the product through the dispensing member. Thus, whether one employed this technique with a piston or another type of pushing expedient would have been an obvious matter of choice and/or design. In view of these teachings, to therefore modify the combination and position the piston adjacent to and under the dispensing member would have been obvious to one having ordinary skill in the art for the purpose of minimizing the amount of air within the product containing compartment, as taught by Obrist and Mekata and for maintaining a gas incorporated into a product in solution, as taught by Scheindel '732. Mekata's filling process even forgoes the need for turning the container upside down to fill with a propellant. These references all teach that the particular arrangement of the pressurized container has been a conventional arrangement when filling with a product and a propellant and to therefore employ a conventional container would also have been an obvious matter of choice and/or design to one having ordinary skill in the art, especially since the art teaches employing these containers for dispensing pasty as well as foaming products (which include ice cream).

**12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 1-4, 9, 12 and 14-16, above and in further view of Scheindel (EP 0136104), Orbst (US 5799469) and Youel (US 5277336).**

It is noted that claim 11 does not limit how the first compartment is filled. That is, the claim only recites that the first compartment is closed (i.e. sealed off) by the dispensing member, while the second compartment has a valve for allowing injection of the gas.

In any case, Scheindel '104 has been relied on to teach a first compartment closed off by a dispensing member and into which a product has been dispensed into the first compartment, and a valve (item 13) through which a propellant is dispensed into the second compartment. Regarding the limitation "the product to be dispensed being introduced into the rigid receptacle from the side of the first compartment" it is noted that Scheindel '104 teaches dispensing a product into the first compartment from the side of the first compartment (see figure 1), the side then being closed off by a valve (figure 7) and a valve through which the propellant has been dispensed (item 13). This is a conventional arrangement for filling a piston-in-can type container and thus to employ a conventional structure for the container would thus have been an obvious matter of choice and/or design. Nevertheless, in view of discussion above with respect to claims 1 and 16, a piston in can type container facilitates complete dispensing of aerated, viscous products and to thus employ piston in can type containers would thus have been obvious for its' art recognized function. Additionally, it is noted that Obrist teaches a first compartment that is closed by a dispensing member which has been filled with a product and a valve for introducing a propellant gas into the second compartment (figures 6 and 7 and column 5, lines 10-37). Youel further evidences this concept as shown on column 3, line 46 to column 4, line 21 and figures 4a-4d).

**13. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 1-4, 9, 12 and 14-16, above and in further view of GB1232929 and Fiedler (US 4659575).**

Regarding claim 13, it is noted that the combination as applied to claim 2, above already teaches wherein during the freezing process which occurs at -9°C, injection of the gas, such as nitrous oxide occurs under pressure. Claim 13 differs from the combination in specifically reciting wherein the pressure is equal to atmospheric up to 10 bars above atmospheric pressure. It is noted that since the freezing is not performed under vacuum, that the combination already teaches wherein the pressure is atmospheric. It is noted that Morley never discusses employing any type of vacuum conditions. Therefore, by injecting the gas under pressure, it is interpreted that this is above atmospheric pressure. In any case, GB1232929 has been relied on to teach incorporating an expansion gas into an ice cream at a pressure of 80 psig (page 2, line 12). This is approximately 5.5 bar. Even further, Fiedler teaches wherein the entrainment of a gas into the ice cream mixture is improved by injecting the gas under pressure, such as 80 psi (column 1, line 51). To therefore modify the combination and employ a particular pressure above atmospheric would have been an obvious matter of routine determination to one having ordinary skill in the art, for the purpose of facilitating entrainment of the soluble expansion gas into the ice cream mix of the prior art.

***Response to Arguments***

14. Applicants' urgings on page 6-7 of the response, indicating that one skilled in the art would appreciate the meaning of the phrase "frozen dessert" since such a term implies a dessert that is designed to be stored and consumed in the "frozen" form has been considered but is not persuasive. It is noted that the rejection is based on the inconsistency of the recitation "frozen dessert" which has already been packaged and then is placed into a freezing tunnel for turning into a pasty state. Thus the claims read on a product which has already been packaged as a frozen dessert and then is placed into a freezing tunnel to further alter its state. Thus it appears that the term frozen dessert in the portion of the claim prior to placing into a freezing tunnel might require further clarification as to what the product would have been (i.e. partially frozen?).

15. Applicants' urgings on pages 8-9 of the response, indicating that the combination does not teach all limitations of the claim have been considered but are moot in view of the new grounds of rejection, above, addressing the new claim limitations.

16. On pages 9-10 of the response, applicants urge that Smadar does not or suggest methods for packaging a frozen dessert wherein the first compartment comprises an expansion gas and the second compartment comprises a propellant gas. Applicants urge that based on column 4, lines 62-64, that Smadar discloses that additional refrigerant pressure for the purpose of dispensing the product is "unnecessary" when an

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expansion gas has been incorporated into the compartment comprising the product. Thus urging has been considered but is not persuasive. Although Smadar indicates that this additional pressure might not be necessary, this would wholly have been a function of the particular amount of the expansion gas incorporated into the product and the particular resultant pressures generated therefrom and the particular pressures desired. Thus, to still employ additional pressure to the outside of the bag comprising the product would have been obvious for the purpose of creating the appropriate degree of dispensing.

17. On pages 10-12 of the response, applicants urge that the combination of references fail to remedy the deficiencies of the rejection of claims 1 and 16. These urgings have been considered but are moot in view of the new grounds of rejection addressing the new limitations to the claims.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VIREN THAKUR whose telephone number is (571)272-6694. The examiner can normally be reached on Monday through Friday from 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571)-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Steve Weinstein/  
Primary Examiner, Art Unit 1794

/V. T./  
Examiner, Art Unit 1794